

TC/TG/TRG MINUTES COVER SHEET

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07/25/01

TC/TG/TRG TITLE: INDOOR ENVIRONMENTAL MODELING

LOCATION: Cincinnati, OH

RECORDED BY: **W. S. Dols**

VOTING MEMBERS	YEAR		PRESENT y/n	Sub-committee Chairs	
	On	Off			
Horstman, Raymond, Chair	00	02	Y	Membership	Hosni, Mohammad
Schwarz, Walter, Vice Chair	00	02	Y	Programs	Emmerich, Steven
Clark, Daniel	00	02	N	Research	Phillips, Duncan
Emmerich, Steven	98	02	Y	Standards	Ensor, David
Kato, Shinsuke (Intl.)	00	04	N	Secretary/Web Page	Dols, W. Stuart
Baker, A J	99	03	N	Handbook	Baker, A. J.
Ensor, David	98	02	Y		
Gaston, Charles	00	02	N		
Hosni, Mohammad	00	04	Y		
Musser, Amy	01	05	Y		
Phillips, Duncan	00	04	N		
Van Gilder, James	01	05	Y		
Von Kempfski, Diotima (Intl.)	98	02	N		
Yang, Xudong	01	05	Y		

CORRESPONDING MEMBERS		PRESENT		CORRESPONDING MEMBERS		PRESENT	
Allard, Francis		N					
Anderson, Ren		N		Markel, Lawrence		N	
Arens, Edward		N		Melikov, Arsen		N	
Axley, James		N		Morrison, Ian		N	
Baban, Farzad		N		Murakami, Shuzo		N	
Barakat, James		N		Offermann, Francis		N	
Barles, Pierre		N		Olesen, Bjarne		N	
Becker, Bryan		N		Pei, Hsien-Sheng		N	
Blackmore, Byron		Y		Peterson, Janice		N	
Carter, John		N		Rivers, Richard		N	
Chen, Qingyan		Y		Roberts, Jack		N	
Christianson, Leslie		N		Rogers, Lisa		N	
Colliver, Donald		N		Sanchez, Greg		N	
Dols, W. Stuart		Y		Sawachi, Takao		N	
Fanger, Ole		N		Seppanen, Olli		N	
Farrington, Franklin		N		Sestak, George		N	
Gadgil, Ashok		N		Shaw, Chia-Yu		N	
Gordon, Elliott		N		Sinclair, Ray		N	
Grimsrud, David		N		Srebric, Jelena		Y	
Grot, Richard		N		Teichman, Kevin		N	
Haghighat, Fariborz		N		Tompkins, Dean		N	
Hall, John		N		Tronville, Paolo		Y	
Hensen, Jan		Y		Vandermeullen, Paul		N	
Hosni, Mohammad		N		Walton, George		N	
Int-Hout, Daniel		Y		Willman, Alexander		N	
Janssen, John		N		Yang, Don		N	
Jones, Gordon		N		Yoshizawa, Susumu		N	
Jones, Robert		N		Zhang, Dexian		N	
Kato, Shinsuke		N		Zhang, Jianshun		Y	
Kelso, Richard		N		Zhang, Wei		N	
Kerr, Carolyn		Y					
Kirkpatrick, Allan		N					
Knappmiller, Kevin		N					
Krafthefer, Brian		N					
Levin, Hal		N					
Manning, Andy		N					
Markel, Morris		N					

ADDITIONAL ATTENDANCE

Alamandari, Farshad	BRE, UK	
Jones, Byron	Kansas State	
Won, Doyun	NRCC	
Novosalec, Atila	Penn State University	
Zhang, Weiming	GKC/EME	Add as CM

Society Liaisons, etc.

		Present: y/n
Groll, Eckhard	TAC Section Head	N
Boome, Alexander	Education Liaison	N
Crowther, Hugh	Refrigeration Liaison	N
Knebel, David	Standards Liaison	N
Friberg, Emil	Program Liaison	N
Sachs, Harvey	Journal/Insights Liaison	N
Dean, William	TAC Chairman	N
Driscoll, Joseph	Special Publications Liaison	N
Ramspeck, Claire	Staff Liaison (Standards)	N
Knight, William	TEGA Liaison	N
Hayter, Sheila	Staff Liaison (Research)	Y
Weiland, Martin	Staff Liaison (Tech. Services)	N

1. **Call to Order:** Acting Chairman Ray Horstman called the meeting to order at 2:15 p.m.
2. **Welcome and introductions:** Ray Horstman.
3. Eight out of fourteen voting members were present at the **roll call** and a quorum was established. Minutes from the last meeting held in Atlanta were reviewed and approved 8-0-0-14.
4. **Announcements:** Ray Horstman attended the TC Chair and Research Committee Chair breakfast meeting and reported the following items:
 - Programs can be submitted online
 - Should ASHRAE formalize putting seminar info online?
No, leave it to the individual TC's to do it if they want to. Don't make it an ASHRAE policy.
 - Atlantic City program packet deadline is August, 3 2001
 - Honolulu program packet deadline is February 8, 2002
 - Sem/symp chairs can not be speakers
 - There were only eleven symposium at this meeting
 - RTARs due August 1 and Work statements due September 15
 - Need more Journal articles
 - How should ASHRAE thank employer sponsored members?
 - Requesting nominations for technology achievement awards
 - Are TCs out of balance by member type?
attempted show of hands to determine for our tc
Academic 7, Manuf/ind 5, Students 1, Design ? ...
 - TC chair training CD is now available
 - Research Project Feedback – ASHRAE wants to know how research results are being used, and if they are benefiting us and industry.
FORUM suggested
RP1009 is used by a software provider!!
 - Handbook is now on CD. ASHRAE wants cool graphics/animations for the handbook.
Check with TC4.10 HB subcommittee chair Jerry Baker
5. **Membership:** Mohammad Hosni
 - Mo counts 15 voting members. Should be 14, because Stuart Dols is not a VM.
 - Add Weiming Zhang as CM wz@GKCEME.com
6. **Research:** Chair Duncan Phillips prepared notes presented by Stuart Dols:
 - **RP-903 Experimental Validation of Multizone Models for Predicting Air Contaminant Transport in High Rise Buildings** (PMS Chair: Dave Ensor, PI: Gren Yuill)
Approved during last meeting. COMPLETE – will not be on the agenda again
 - **RP-978 Interaction of Room Air Motion and the Human Body in Confined Spaces** (PMS Chair Jianshun Zhang, PI Byron Jones) COMPLETE – will not be on the agenda again
 - **RP-1097 Modeling VOC Sorption of Building Materials and its Impact on Indoor Air Quality – Phase I** (PMS Chair: Dan Int-Hout, PI: Jianshun Zhang) – A final report was submitted to the PMS and four of five PMS members recommended its approval. The fifth member was not present at the PMS meeting. Motion was made to approve the recommendation of the PMS. Motion passed 8/0/0/14. The committee agreed that Phase II of this is now needed, and an RTAR should be written for the next phase. Xudong Yang agreed to write up the RTAR by August 8, 2001.
 - **RP-1133 How to Verify, Validate, and Report Indoor Environmental Modeling CFD Analyses** (PMS Chair Farzad Baban, PI Yan Chen) – A motion was made to approve the final report for this project as recommended by the PMS and endorsed by the Research Subcommittee.
Motion passed 8/0/0/14.

- **Research Plan** - should consist of 5-10 topics which we are interested in with the top 3-5 being prioritized. The top 3 need to have RTARs. The committee voted 8/0/0/14 for the following research plan:
 1. **Computational prediction and analysis of natural ventilation**
 2. **Modeling low Velocity Large Scale Fluctuating Flows in Ventilated Spaces**
 3. **Modeling Ventilated Environments with large Internal Heat Loads**
 4. **Modeling VOC Sorption of Building Materials and its Impact on Indoor Air Quality – Phase II (second phase of RP-1097)**

Based upon information received by the Research Subcommittee Chair (i.e. Duncan), TC4.10 should resubmit RTARs for the first three items in the above list as well as a new RTAR for the fourth item.

A motion was made to submit a work statement presented at the meeting for the **Computational prediction and analysis of natural ventilation** project. Motion passed 8/0/0/14.

7. **Program** – reported by Steve Emmerich

- Program subcommittee chair submitted and email to ASHRAE regarding the two symposia scheduled simultaneously at the previous meeting. The response from Janette Lynch was that they appreciated our concern, but chairs should not potential conflicts upon submission of programs to ASHRAE.
- Suggested SEMINAR: *Successful Application of ASHRAE-Sponsored Indoor Environmental Modeling Research*. Jelena Sreberic “volunteered” to chair the seminar for Atlantic City.
- Expected program for Atlantic City: Packages due August 3, 2001
 - Symposium – **Application of Indoor Environmental Modeling to Real World Building Airflow Design Problems** organized by Steve Emmerich
 - ~~Symposium – **Experimental and Numerical Studies of Airflow in Inside Transportation Environments** organized by Walter Schwarz~~
- Suggestions for Honolulu June 2002: Submitted by Sept 28, 2001. Packages due Feb 28, 2002
 - Symposium – **Material Emissions/Adsorption and IAQ** organized by Gemma Kerr
 - Symposium – **Practical Applications of Multizone Modeling** organized by Stuart Dols
 - Symposium – **Airflow Around Human Bodies** organized by Jianshun Zhang
 - Symposium – **Modeling Natural or Hybrid Ventilation Systems** organized by Jim Van Gilder
- VOTE 8-0-0-14 to approve the program plan described above
- Suggestions for Chicago January 2003: Submitted by April 2, 2002. Packages due August 2, 2002
Experimental Measurement and Numerical Modeling of Indoor Airflows Chair: Mo Hosni

8. **Handbook** – Reported by Ray Horstman.

9. **Standards** – Dave Ensor

10. **Web Site** – Reported by Stuart Dols

11. **Relevant Activities**

TC1.2 *Instruments and Measurements* - Arsen Melikov

TC2.1 *Physiology and Human Environment* - Diotima Von Kempster

TC2.3 *Gaseous Air Contaminants/Removal Equipment* - Gemma Kerr

Effects of reemissions from loaded filters is high up on their research plan.

TC2.4 *Particulate Air Contaminants/Removal Equipment* - Dave Ensor

TC5.3 *Room Air Distribution* - John Jenssen

TC5.8 *Industrial Ventilation* - Duncan Phillips

TC9.3 *Transportation* - Ray Horstman

12. **New Business**

13. A move to **adjourn** was made and approved.